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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/643,090	08/21/2000	Oleg Drapkin	ATI000142	8641
34456	7590	09/01/2004	EXAMINER	
TOLER & LARSON & ABEL L.L.P. 5000 PLAZA ON THE LAKE STE 265 AUSTIN, TX 78746			LE, DON P	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 09/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/643,090

**Applicant(s)**

DRAPKIN ET AL.

**Examiner**

Don P Le

**Art Unit**

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 35-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 14, 15, 40, 41, 45-48 and 50-52 is/are rejected.
- 7) ☒ Claim(s) 3-13, 16, 35-39, 42-44, 49 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 112***

1. Claims 46-48 and 50-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There are no “means” in claim 45. Therefore, these claims are indefinite since they refer to **means**. Request that applicant fix the problem.

To expedite the prosecution of this case, examiner assumed there is an equivalent circuit that provides a function as claimed.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 14, 15, 40, 41, 45, 46 and 50-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Ang et al. (US 6,420,913).

4. With respect to claims 1, 40 and 45, figures 1-18 of Ang teach a method comprising:

Monitoring a dynamic condition (PVT, see abstract) that causes transmission line impedance to vary;

Dynamically determining based upon the dynamic condition if a drive strength of a first output coupled to a first node (206, figure 2) is to be adjusted; and

Dynamically adjusting the drive strength of the first output when determining indicates **the drive strength of the first output** is to be adjusted (circuit in figure can be adjusted as needed).

5. With respect to claims 2, 14, 15, 41, 46 and 50-52, Ang further teaches:

monitoring the dynamic condition includes monitoring a first plurality of values (PVT) to be provided substantially simultaneously (sequentially) in time to a first plurality of first nodes (104) that are adjacent to the first output; and

dynamically adjusting includes dynamically adjusting the drive strength of the first output based on the first plurality of values.

***Allowable Subject Matter***

6. Claims 3-13, 16, 35-39 and 42-44 and 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 47 and 48 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. The following is an examiner's statement of reasons for allowance:

With respect to claims 3, 42, 43, 47 and 48, the prior art does not teach a method having a step of reducing drive strength when a majority of a plurality of first nodes is transitioning from a first voltage level to a second voltage level.

With respect to claims 7, 44 and 49, the prior art does not teach a second output node.

With respect to claim 16, the prior art does not teach increasing drive strength of a first output node after two or more cycle.

With respect to claim 35, the prior art does not teach monitoring a bit pattern.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

9. Applicant's arguments filed 8/6/2004 have been fully considered but they are not persuasive.

Applicant argues that the prior art does not teach the limitations of dynamically determining based upon a dynamic condition (that causes transmission line impedance to vary) if a drive strength of a first output coupled to a first node is to be adjusted and dynamically adjusting the drive strength of the first output when determining indicates the drive strength of the first output is to be adjusted. The

prior art does teach these limitations in that the driver circuit of Ang consists a plurality of output transistors (202, 204) that provide output an output signal at node 206. This signal at node 206 has a drive strength under PVT conditions. **The current level or drive strength at node 206** depends on how many pull-up or pull-down transistors are activated as a result of PVT.

### *Conclusion*

**10. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

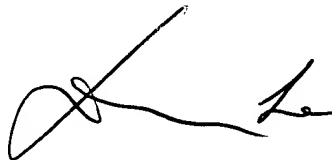
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**11.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don P Le whose telephone number is 703-308-4890. The examiner can normally be reached on 7AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J Tokar can be reached on 703-305-3493. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/29/2004

A handwritten signature in black ink, appearing to read 'DON LE', with a stylized flourish at the end.

**DON LE**  
**PRIMARY EXAMINER**